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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KNABLE, GEOFFREY L

ART UNIT

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1791

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/988,347	Applicant(s) OGAWA ET AL.	
	Examiner Geoffrey L. Knable	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,4,13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3,4,13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/23/2007 has been entered.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 13 defines that *at least one* tire constitutive member (i.e. broadly defined) is formed by winding, with new claim 14 further defining that the winding is from a radially outer position to a radially inner position. It however is not considered that the invention of claim 14 is described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, i.e. it is considered to be new matter. First, there does not appear to be any literal support in the specification for what is claimed in this regard. Support thereof, therefore is apparently to be found in the drawings. However, while fig. 1 for example would seem to indicate that the winding of

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the *sidewall* is from the radially outer side and proceeds inwardly, in fig. 1a, the *chafer* “16” is illustrated as what would be understood as a winding from the radially inner side in an outward direction (i.e. opposite to that claimed). Fig. 2 shows a similar configuration of the windings. Similarly, the *filler* windings in figs. 3a and 3b are illustrated in a manner that would have been likewise understood as being from a start point at the radially inside and then outward (i.e. opposite to that claimed). There is therefore not considered to be descriptive support in the original disclosure for winding from a radially outer position to a radially inner position for broadly “at least one tire constitutive member” as claimed. Support for such a winding direction in fact seems to be limited to the *sidewall* (in light of the figures). As such, it is considered to be new matter to broadly define such a winding direction for the at least one tire member (it further being clear from the presence of dependent claim 4 that the member or members defined in claim 13 can be not just the sidewall but also at least the bead filler, chafer, buffer and undercushion). In other words, to summarize, the original disclosure only depicts winding from the outer position to a radially inner position for the *sidewall*, descriptive support lacking for broadly defining such a winding direction for forming the at least one member as claimed.

4. Claims 3, 4, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Landsness (US 4,279,683) or DE 19831747 to Continental alone or (under 35 USC 103(a) only) either of these references taken further in view of Tokunaga et al. (US 5,380,384).

These references are applied for substantially the same reasons already of record. In particular, Landsness discloses a process for making a tire in which the tread and sidewall may be wound and joined to a toroidally shaped "green" (i.e. unvulcanized) tire carcass (esp. col. 1, lines 58+; figs. 5-6). Further, the carcass has apparently been toroidally shaped from cylindrical form as typical (e.g. note col. 1, lines 34+), it being noted that even if it were not considered to be an explicit disclosure that the carcass is shaped from cylindrical form, such would have certainly been the natural and obvious technique to form the toroidal carcass in light of the reference to typical two stage building at col. 1, lines 34+ as well as the extremely common, well known and typical nature of such a building technique in which the tire is initially built on a cylindrical drum followed by expansion. Further, Landsness clearly indicates that the strip is wound and overlapped plural times to form the component (e.g. fig. 6 - note the strip turns are clearly at least partially superimposed). As to the requirement that the strip has a "cross-section that is determined depending on the shape of the tire constitutive member to be formed", in view of for example col. 1, lines 41-47, it is implicit or obvious that the strip dimensions are or should be selected and taken into account to achieve the desired contour of the tire member being wound. This reference is therefore considered to clearly suggest (or certainly render obvious) a method as defined in claim 13. As to claim 3, note that the reference indicates that more than one kind of component, i.e. the tread and sidewall, can be formed. As to claim 4, the components include sidewall. As to claim 14, from for example fig. 6, it is submitted that the ordinary artisan would have understood that a continuation of the winding laterally beyond the

equatorial plane of the tire would include, or it would have been obvious to include, windings that are from a radially outer position to a radially inner position.

Similarly, DE '747 to Continental¹ discloses a process for making a tire in which the tread and sidewall may be formed by winding an overlapped strip onto a toroidally shaped tire carcass (note esp. col. 3, lines 5-22 of Blickwedel US 6,923,879). In light of this reference to the carcass having "already been shaped" (col. 3, line 21), esp. read in view of col. 1, lines 15+ indicating the classical method includes toroidal shaping from cylindrical form, it is considered to be defining that the carcass is shaped/*expanded*. In any event, it is noted that even if it were not considered to be an explicit disclosure that the carcass is shaped from cylindrical form, such would have certainly been the natural and obvious technique to form the toroidal carcass in light of the reference to shaping/expansion as well as the extremely common, well known and typical nature of a building technique in which the tire is initially built on a cylindrical drum followed by expansion (note also col. 1 of Blickwedel as well as Tokunaga et al. described below). As to the claim reference to the carcass being in an unvulcanized state, it is noted that Blickwedel indicates that in the inventive strip winding method the "conventional manufacturing process can be retained at least with respect to vulcanization methods" (col. 3, lines 5-17) and thus the artisan would have understood that the conventional tire method (i.e. in which the curing/molding occurs after the green tire building - e.g. note also col. 1, lines 15-42) is included. As such, the artisan would have understood this as

¹ as previously noted, DE '747 is apparently equivalent to previously cited Blickwedel (US 6,923,879) - Blickwedel itself was previously withdrawn in view of applicant perfecting priority - portions of this US patent will however be referred to in this rejection as this is reasonably considered to effectively represent an English translation of DE '747 (e.g. note the shared priority/common figures/etc.).

suggesting that the carcass can be uncured during building and otherwise vulcanized conventionally. As to the requirement that the strip has a “cross-section that is determined depending on the shape of the tire constitutive member to be formed”, in view of for example col. 7, lines 13-15, it is clear that the desired strip cross-section is determined based on the component (sidewall) being formed. This reference is thus considered to clearly suggest (or certainly render obvious) a method as defined in claim 13. As to claim 3, note that the reference indicates that more than one kind of component, i.e. the tread and sidewall (as well as apparently the belt), can be wound/formed. As to claim 4, the components include sidewall. As to claim 14, it is submitted that the ordinary artisan would have read the suggestion that the winding “starts *usually* in the bead region” (col. 7, lines 22-23; emphasis added) as an indication to the artisan that the winding could start at the opposite end (i.e. the shoulder region) if desired, only the expected results being achieved.

As to the step of radially outward expanding a cylindrical carcass, it is again submitted that such is implicit or obvious from Landsness and DE '747 for the reasons detailed above. Tokunaga et al. was applied to further buttress this position of the well known and conventional nature of such a green tire building step, this reference further evidencing an understanding that it is particularly desirable to add the sidewall to the tire *after this outward expanding step* (as in Landsness and DE '747) – note esp. figs. 2f-2h. As such, even if not considered implicit in the disclosures of the primary references, outward or toroidal expansion of a cylindrical green carcass would have been

understood as representing the typical and standard way in which tires are built and toroidally shaped.

5. Claims 3, 4, 13 and 14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 10-109,506 to Otsu.

JP '506 (a translation was provided by applicant on 1-5-2007) discloses a method for manufacturing a tire comprising radially outwardly expanding a center portion of a cylindrical carcass band (fig. 3; paragraphs [0044]-[0045]) followed by winding a rubber strip onto the expanded carcass (esp. fig. 2). As to the requirement that the strips are at least partially superimposed, it would seem reasonable to term the fig. 2 windings as including superimposed windings since the previous turn is underneath the succeeding turn. In any event, note that JP '506 also indicates that superposed layers may also be wound (paragraph [0039]). As to the requirement that the carcass band that is wound upon be unvulcanized, note for example paragraph [0047] that indicates that the tire being formed is a "raw tire", it being considered that the ordinary artisan would have understood this as suggesting or certainly rendering obvious formation of the tire and consequently its constituent parts, such as the carcass, in unvulcanized state, as is typical. As to the requirement that the strip has a "cross-section that is determined depending on the shape of the tire constitutive member to be formed", in view of for example paragraph [0039], it is clear that the strip dimensions are selected taking into account the characteristics of the layer to be formed including for example its circumferential curvature and thickness. A method as required by claim 13 is therefore anticipated or obvious from this reference. As to claim 3, note

for example layers 11 and 14. As to claim 4, the layer 11 is part of the sidewall. As to claim 14, it is submitted that the ordinary artisan would have read the suggestion that the strip is "*preferably* wound in succession from inside to outside in the radial direction..." (paragraph [0040]; emphasis added) as an indication to the artisan that the winding could proceed in the opposite direction if desired, only the expected results being achieved.

6. Applicant's arguments filed 11-23-2007 have been fully considered but they are not persuasive.

The previous 35 USC 112, first paragraph rejection has however been withdrawn with the amendments to the claims.

With respect to Landsness and DE '747, it is argued that these references "fail to teach, or reasonably to have suggested, winding of the rubber strip after the radial expansion of the carcass band..." (emphasis in original) or the resultant advantages. This argument has been carefully considered but is unpersuasive for substantially the reasons noted in the statement of rejection above. Again, both Landsness and DE '747 are considered to clearly be winding on a toroidally shaped carcass. To achieve this by expansion (which, as is well known to the ordinary artisan, represents standard and typical two stage radial tire building technique) is implicit or obvious for reasons noted in the statement of rejection. If applicant's arguments are that this shape is not achieved by expansion, then applicant would seem to be in essence arguing that the tire is in fact built up on a toroidal core; however, there is no evidence that such was contemplated in either reference, particularly given the reference to shaping in each reference.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Geoffrey L. Knable/

Geoffrey L. Knable
Primary Examiner
Art Unit 1791

G. Knable
February 1, 2008